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=> file medline caplus caold biosis

COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         1.50       1.50

FILE 'MEDLINE' ENTERED AT 08:33:49 ON 24 FEB 2000

FILE 'CAPLUS' ENTERED AT 08:33:49 ON 24 FEB 2000
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FILE 'CAOLD' ENTERED AT 08:33:49 ON 24 FEB 2000
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FILE 'BIOSIS' ENTERED AT 08:33:49 ON 24 FEB 2000
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=> s allergy inhibitors

L1         5748 ALLERGY INHIBITORS

=> s interleukin 1 .beta.

L2        29627 INTERLEUKIN 1 .BETA.

=> s lactoferrins

L3         2597 LACTOFERRINS

=> s lactoferrin receptor

L4          225 LACTOFERRIN RECEPTOR

=> s dermatitis or contact dermatitis

L5        62702 DERMATITIS OR CONTACT DERMATITIS

=> s anti-inflammatory drug

L6         6294 ANTI-INFLAMMATORY DRUG

=> l3 and l1

L3 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l3 and l1

L7            2 L3 AND L1

=> d iall 1-2
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L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:682302 CAPLUS
DOCUMENT NUMBER: 129:285991
TITLE: Use of lactoferrin in the treatment of allergen-induced disorders
INVENTOR(S): Kimber, Ian; Cumberbatch, Marie; Dearman, Rebecca J.; Conneely, Orla M.; Ward, Pauline
PATENT ASSIGNEE(S): Agennix, Inc., USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: A61K038-40
CLASSIFICATION: 1-7 (Pharmacology)
Section cross-reference(s): 62, 63
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9844940	A1	19981015	WO 1998-US7234	19980410
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9869647	A1	19981030	AU 1998-69647	19980410
EP 979099	A1	20000216	EP 1998-915471	19980410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			US 1997-41890	19970410
			WO 1998-US7234	19980410

ABSTRACT:
The present invention relates to pharmaceutical compns. and methods using lactoferrin for treating allergic disorders characterized by a local immune response including inflammatory skin reactions, asthma, and arthritis.

SUPPL. TERM: lactoferrin allergen disorder immune response; skin inflammation asthma arthritis lactoferrin
INDEX TERM: Cell migration
(Langerhans' cell; lactoferrin in the treatment of allergen-induced disorders)
INDEX TERM: UV radiation
(UV-induced inflammation; lactoferrin in the treatment of allergen-induced disorders)
INDEX TERM: Face
(facial skin aging; lactoferrin in the treatment of allergen-induced disorders)
INDEX TERM: Skin aging
(facial; lactoferrin in the treatment of allergen-induced disorders)
INDEX TERM: Diapers
Infant
(infant diaper rash; lactoferrin in the treatment of allergen-induced disorders)
INDEX TERM: **Allergy inhibitors**
Anti-inflammatory drugs
Antiarthritics

Antiasthmatics
Bronchitis
Contact dermatitis
Cosmetics
Dendritic cell
Dermatitis
Drug delivery systems
Keratinocyte
Langerhans' cell
Photoprotectants
Psoriasis
Pulmonary inflammation
Rhinitis
Wrinkle-preventing cosmetics
(lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Hydroxy carboxylic acids
ROLE: ADV (Adverse effect, including toxicity); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Interleukin 1.beta.
ROLE: BAC (Biological activity or effector, except adverse);
BPR (Biological process); BIOL (Biological study); PROC (Process)
(lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: **Lactoferrins**
ROLE: BAC (Biological activity or effector, except adverse);
THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Lactoferrin receptors
Tumor necrosis factor .alpha.
ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Skin diseases
(rash, infant diaper rash; lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Respiratory tract diseases
(sinusitis; lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: 302-79-4, Tretinoin
ROLE: ADV (Adverse effect, including toxicity); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactoferrin in the treatment of allergen-induced disorders)

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:268327 CAPLUS
DOCUMENT NUMBER: 128:326335
TITLE: Hypoallergenic compositions and compositions for treatment of sensitive skin
INVENTOR(S): Castelli, Dominique; Ries, Gerd; Friteau, Laurence; Bousigniere, Elisabeth; Fredon, Laurent
PATENT ASSIGNEE(S): ROC, Fr.; Castelli, Dominique; Ries, Gerd; Friteau, Laurence; Bousigniere, Elisabeth; Fredon, Laurent
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: A61K007-48
CLASSIFICATION: 62-4 (Essential Oils and Cosmetics)
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9817246	A1	19980430	WO 1997-IB1318	19971021
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
FR 2754713	A1	19980424	FR 1996-12821	19961022
FR 2754713	B1	19990108		
AU 9744703	A1	19980515	AU 1997-44703	19971021
BR 9712648	A	19991026	BR 1997-12648	19971021
EP 955995	A1	19991117	EP 1997-943120	19971021
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			FR 1996-12821	19961022
			WO 1997-IB1318	19971021

ABSTRACT:
A synergistic combination of .gtoreq.2 of (a) an anti-radical agent, (b) an anti-inflammatory agent, and (c) an anti-allergy agent is used for prepn. of a compn. for treatment of sensitive skin and/or skin allergy. The anti-radical agent is a radical scavenger, inhibitor of lipid peroxidn., or stimulant of endogenous prodn. of radical-degrading enzymes. The anti-inflammatory agent is
a prostaglandin antagonist (cyclooxygenase inhibitor) or an inhibitor of prodn.
of cytokines, leukotrienes, or reactive nitro compds. The anti-allergy agent is an inhibitor of lymphocyte proliferation, of histocompatibility antigen receptor internalization, or of cytokine prodn. The combination inhibits the synthesis and/or expression of neuromediators such as neurokinins A and B, vasoactive intestinal polypeptide, neuropeptide Y, neurotensin, and NGF. Thus,
dried Ginkgo biloba leaves were extd. to remove chlorophyll, lipids, waxes, lectins, etc. A combination of the Ginkgo extn. residue (5 mg/mL) and carboxymethyl-.beta.-glucan (5 mg/mL) synergistically inhibited NO2- formation,
TNF formation, and CD23 expression in cultured human keratinocytes after stimulation with a combination of IFN-.gamma. and Escherichia coli lipopolysaccharide. Similar results were obtained after stimulation of the cells with IL-4 and IgE-contg. immune complexes. A suitable compn. contained tretinoin 0.05, .beta.-glucan 0.50, G. biloba ext. 0.10, light liq. paraffin 25.00, 70% sorbitol soln. 5.00, hydroxyoctacosanyl hydroxystearate 5.00, methoxy-Macrogol 22/dodecyl glycol copolymer 5.00, Macrogol 45/dodecyl glycol copolymer 3.00, stearoxytrimethylsilane + stearyl alc. 1.00, dimethicone 1.00, fragrance 0.25, Me p-hydroxybenzoate 0.20, Na edetate 0.10, Quaternium 15 0.10,
BHT 0.10, citric acid monohydrate 0.10, and H2O 53.495 g.

SUPPL. TERM: skin irritation treatment radical antagonist; inflammation inhibitor sensitive skin; allergy inhibitor sensitive skin
INDEX TERM: Prostaglandins
ROLE: BSU (Biological study, unclassified); BIOL (Biological
study)

(antagonists; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Skin diseases
(dry skin; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Scutellaria
(ext.; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Receptors
ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(for HLA antigens, internalization of, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Cytokines
Leukotrienes
Neurohormones
Tumor necrosis factors
ROLE: MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(formation of, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Tea products
(green; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: **Allergy inhibitors**
Alopecia
Anti-inflammatory drugs
Atopy
Decolorizing agents
Dermatitis
Ginkgo biloba
Immunosuppressants
Keratinocyte
Lupus erythematosus
Macrophage
Psoriasis
Radical scavengers
Skin irritation
Sunscreens
Synergistic drug interactions
(hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Radicals, biological studies
ROLE: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: **Lactoferrins**
Retinoids
ROLE: BAC (Biological activity or effector, except adverse);
THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Lymphocyte proliferation
(inhibitors; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: HLA antigens
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(internalization of receptors for, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Erythema
(multiforme; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Dermatitis
(neurodermatitis; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Endocytosis
(of HLA receptors, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Peroxidation
(of lipids, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Skin diseases
(pemphigus; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Lipids, biological studies
ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(peroxidn. of, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Saccharomyces cerevisiae
(polyglucopyranose from membranes of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Enzymes, biological studies
ROLE: BAC (Biological activity or effector, except adverse);
THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radical-scavenging; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Skin diseases
(rosacea; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: 14797-65-0, Nitrite, biological studies
ROLE: MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(formation of, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: 50-81-7, Vitamin C, biological studies 58-95-7, Tocopheryl
acetate 59-02-9, .alpha.-Tocopherol 59-02-9D, .alpha.-Tocopherol, derivs. 68-26-8, Retinol 70-18-8, Glutathione, biological studies 81-13-0, D-Panthenol 83-46-5, .beta.-Sitosterol 288-32-4D, Imidazole, derivs. 302-79-4, Tretinoin 471-53-4, 18.beta.-Glycyrrhetinic acid
9041-22-9, .beta.-Glucan 9041-22-9D, .beta.-Glucan, derivs. 9051-97-2, Drieline 13832-70-7, Stearyl glycyrrhetinate 25378-27-2, Eicosapentaenoic acid 34096-83-8 35041-16-8 37306-44-8D, Triazole, derivs. 71276-50-1, .alpha.-Tocopherol phosphate 78922-62-0, Thymulin 133875-94-2
ROLE: BAC (Biological activity or effector, except adverse);
THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: 9054-89-1, Superoxide dismutase
ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(hypoallergenic compns. and compns. for treatment of sensitive skin)

=> s l3 and l6

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L8            1 L3 AND L6

=> l3 and l4

L3 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l3 and l4

L9           61 L3 AND L4

=> s l9 and l2

L10           0 L9 AND L2

=> s l9 and inhibit?

L11          14 L9 AND INHIBIT?

=> s l9 and lactoferrin?.ti.

L12           0 L9 AND LACTOFERRIN?.TI.

=> s l4 and allerg?

L13           0 L4 AND ALLERG?

=> d l11 ibib abs 1-10


L11  ANSWER 1 OF 14  MEDLINE
ACCESSION NUMBER:    94185884      MEDLINE
DOCUMENT NUMBER:     94185884
TITLE:               Effect of bovine milk antigens and egg lysozyme on the
                     binding of 59Fe-lactoferrin to platelet plasma membranes.
AUTHOR:              Maneva A I; Taleva B M; Manev V V; Sirakov L M
CORPORATE SOURCE:    Department of Biochemistry, Medical Faculty, High Medical
                     Institute, Sofia, Bulgaria..
SOURCE:              INTERNATIONAL JOURNAL OF BIOCHEMISTRY, (1993 Dec) 25 (12)
                     1785-90.
                     Journal code: E4S. ISSN: 0020-711X.
PUB. COUNTRY:        ENGLAND: United Kingdom
                     Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:            English
FILE SEGMENT:        Priority Journals
ENTRY MONTH:         199406
AB   1. Platelets bind specifically to lactoferrin. A significant similarity
     between human lactoferrin and some bovine milk proteins has been
     established. 2. Because of the structural homology of lactoferrin and
cows
     milk proteins they are able to influence lactoferrins regulatory
     function on the level of its binding to membrane receptors on platelets.
     3. An inhibitory effect of bovine alpha-lactalbumin and of
     beta-lactoglobulin on lactoferrin-receptor interaction
     was shown. 4. Bovine alpha-lactalbumin competes with lactoferrin for the
     binding sites. 5. Scatchard plot analysis of data shows one binding site
     for lactoferrin in the presence of alpha-lactalbumin with an affinity
     constant, Ka = 0.46 x 10(9) mol/l and 335 receptors/cell. 6. The
     inhibitory effect of beta-lactoglobulin reaches 62% and is
     different for the common fraction beta-lactoglobulin and the genetic
     variants beta-lactoglobulin A and B. 7. beta-lactoglobulin does not
     compete with lactoferrin for the membrane receptors. 8. Bovine casein and
     egg lysozyme stimulate 59Fe-lactoferrin binding to the receptors. The
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mechanism of these effects is still unknown. 9. Tested alimentary antigens
are able to interact with lactoferrin and also with some platelet membrane
structures. 10. Established changes in lactoferrin binding to the platelet
membrane might be in relation to **lactoferrins** regulatory
function and (or) eliminating mechanisms of these alimentary antigens.

L11 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:191976 CAPLUS
DOCUMENT NUMBER: 130:350110
TITLE: Receptor-mediated transcytosis of lactoferrin through the blood-brain barrier
AUTHOR(S): Fillebeen, Carine; Descamps, Laurence; Dehouck, Marie-Pierre; Fenart, Laurence; Benaissa, Monique; Spik, Genevieve; Cecchelli, Romeo; Pierce, Annick
CORPORATE SOURCE: Laboratoire de Chimie Biologique, Unite Mixte de Recherche 111, CNRS, Universite des Sciences et Technologies de Lille, Villeneuve d'Ascq, 59655, Fr.
SOURCE: J. Biol. Chem. (1999), 274(11), 7011-7017
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Lactoferrin (Lf) is an iron-binding protein involved in host defense against infection and severe inflammation; it accumulates in the brain during neurodegenerative disorders. Before detg. Lf function in brain tissue, the authors investigated its origin and demonstrate here that it crosses the blood-brain barrier. An in vitro model of the blood-brain barrier was used to examine the mechanism of Lf transport to the brain. The authors report that differentiated bovine brain capillary endothelial cells exhibited specific high (Kd = 37.5 nM; n = 90,000/cell) and low (Kd = 2 .mu.M; n = 900,000 sites/cell) affinity binding sites. Only the latter were present on nondifferentiated cells. The surface-bound Lf was internalized only by the differentiated cell population leading to the conclusion that Lf receptors were acquired during cell differentiation. A specific unidirectional transport then occurred via a receptor-mediated process with no apparent intraendothelial degrdn. The authors further report that iron may cross the bovine brain capillary endothelial cells as a complex with Lf. Finally, the authors show that the low d. lipoprotein receptor-related protein might be involved in this process because its specific antagonist, the receptor-assocd. protein, **inhibits** 70% of Lf transport.

L11 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:323740 CAPLUS
DOCUMENT NUMBER: 127:2848
TITLE: Specific binding of ferrilactoferrin and ferritransferrin in the protozoan Leishmania chagasi
AUTHOR(S): Mccormick, Michael L.; Wilson, Mary E.; Lewis, Troy S.; Vorhies, Robert W.; Britigan, Bradley E.
CORPORATE SOURCE: Infectious Diseases Research Laboratories, VA Medical Center, Iowa City, IA, USA
SOURCE: Exp. Biol. Med. (Totowa, N. J.) (1997), 28(Lactoferrin), 333-342
CODEN: EBIMFW
PUBLISHER: Humana
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The promastigote form of the parasite Leishmania chagasi, the cause of South American visceral leishmaniasis, can grow in media contg. Fe in the

form of hemin, or Fe bound to lactoferrin or transferrin. Addnl., promastigotes were shown to take up 59Fe from lactoferrin or transferrin, but uptake from lactoferrin was more rapid. Iron acquisition varied with the growth stage of the organism (log > stationary). The inability to detect any L. chagasi-derived siderophores or evidence of lactoferrin or transferrin cleavage led the authors to investigate the presence of specific promastigote lactoferrin and/or transferrin receptors. They now report evidence for specific and saturable binding of lactoferrin to L. chagasi promastigotes. Binding of [125I]-labeled lactoferrin was **inhibited** by cold lactoferrin, but to a much lesser extent by cold transferrin. Binding kinetics for human apolactoferrin, human diferriclactoferrin, and bovine apolactoferrin were similar, as was lactoferrin binding to log and stationary-phase promastigotes. In contrast, preliminary studies suggest that saturable binding of [125I]-labeled transferrin is **inhibited** by both cold transferrin and cold lactoferrin. Preliminary Scatchard data suggest that the promastigote **lactoferrin receptor** has a Kd of approx 4 .times. 10-7M with 2.5 .times. 104 receptors/cell. In summary, lactoferrin binding to L. chagasi promastigotes is specific and saturable.

Whether transferrin binds to the same or different receptor remains to be elucidated.

L11 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:339408 CAPLUS
DOCUMENT NUMBER: 125:54283
TITLE: Processes underlying interactions of human lactoferrin with the Jurkat human lymphoblastic T-cell line receptor. I. Quantitative structure-affinity relationships studies
AUTHOR(S): Elass, Abdelaziz; Vergoten, Gerard; Legrand, Dominique; Mazurier, Joel; Elass-Rochard, Elisabeth; Spik, Genevieve
CORPORATE SOURCE: Cent. Recherche d'Etudes Simulations Modelisation Mol., Univ. Sci. Technol. Lille, Villeneuve d'Ascq, 59655, Fr.
SOURCE: Quant. Struct.-Act. Relat. (1996), 15(2), 94-101
CODEN: QSARDI; ISSN: 0931-8771
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Human lactoferrin displays considerable structural homol. with transferrins of other species. However, **lactoferrins** and transferrins play distinct biol. roles and bind to specific cell receptors. Previous reports have shown that residues 4-52 of human lactoferrin are potentially involved in interaction with a specific T-lymphocyte receptor. In the present study, competitive binding assays of lactoferrin to the Jurkat human lymphoblastic T-cell line were performed using seven **lactoferrins** and transferrins, as well as both C-terminal lobes of human and bovine **lactoferrins**. Classical quant. structure-affinity relationships (QSAR) models revealed important descriptors, namely H-bonds donor and acceptor groups of amino acid side chains, demonstrating that hydrogen bonding is a significant binding factor. This report points out the importance of residues R3, Q7, P14, N13, T17, F20, Q23, R24, K28, S38, D43, S44, P45, Q47, Q50 and N55 of human lactoferrin in the interaction with the lymphocyte receptor. The most important residues which contribute pos. to the **inhibition** of the binding affinity are R3, Q7, Q23, R24, S38, the chem. groups involved in H-bonding are R3-(NH), Q7-(=O), Q23-(=O), R24-(NH), S38-(OH).

L11 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:129674 CAPLUS
DOCUMENT NUMBER: 124:173392

TITLE: Glycans of bovine lactoferrin function as receptors for the type 1 fimbrial lectin of Escherichia coli
AUTHOR(S): Teraguchi, Susumu; Shin, Kouichirou; Fukuwatari, Yasuo; Shimamura, Seiichi
CORPORATE SOURCE: Nutritional Science Lab., Morinaga Milk Industry Co., Zama City, Japan
SOURCE: Infect. Immun. (1996), 64(3), 1075-7
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Bovine lactoferrin strongly **inhibited** the hemagglutination activity of type 1 fimbriated Escherichia coli. In addn., it agglutinated these bacteria. The agglutination reaction was specifically **inhibited** by glycopeptides derived from bovine lactoferrin or .alpha.-methyl-D-mannoside. Thus, the glycans of bovine lactoferrin can serve as receptors for type 1 fimbrial lectin.

L11 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1995:798863 CAPLUS
DOCUMENT NUMBER: 123:226717
TITLE: Receptor-mediated binding of milk lactoferrin to nursing piglet enterocytes: A model for studies on absorption of lactoferrin-bound iron
AUTHOR(S): Gislason, Johannes; Douglas, Gordon C.; Hutchens, T. William; Lonnerdal, Bo
CORPORATE SOURCE: Department Nutrition, University California, Davis, CA, 95616-8669, USA
SOURCE: J. Pediatr. Gastroenterol. Nutr. (1995), 21(1), 37-43
CODEN: JPGND6; ISSN: 0277-2116
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Lactoferrin, an iron-binding glycoprotein that is abundant in milk of some species, has been suggested to play a key role in the absorption of iron in human infants. This hypothesis is based on the dominant role of lactoferrin as an iron-binding component in human milk and on the occurrence of lactoferrin receptors in brush border membranes in infants' intestines. The piglet may be a useful model to evaluate the biol. activity of lactoferrin because we have previously found the presence of a **lactoferrin receptor** in brush-border membranes from suckling piglets. In this study, viable enterocytes were isolated from 6- to 20-day-old suckling piglets. Binding studies were performed at 4.degree.C using 125I-labeled porcine lactoferrin. Scatchard anal. of equil. binding data showed an apparent binding const. (Kd) of 2 .times. 10-6 M (SD = 0.6 .times. 10-6). This affinity is in close agreement with previous results obtained using isolated brush-border membrane vesicles. Bovine lactoferrin **inhibited** the binding of porcine lactoferrin. Porcine transferrin, however, did not affect porcine lactoferrin binding significantly. Thus, lactoferrin binding is highly specific. When enterocytes were incubated with 125I-labeled lactoferrin at 37.degree.C, the amt. of cell-assocd. radioactivity exceeded the surface binding capacity of the cells by almost fivefold. This finding agrees with the continuous binding and subsequent internalization of 125I-labeled lactoferrin. The isolated piglet enterocyte seems to provide a useful model for further studies of the mechanism of receptor-mediated absorption of lactoferrin.

L11 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1995:739079 CAPLUS
DOCUMENT NUMBER: 123:165695
TITLE: Zonal distribution of receptor binding of

trypsin-activated .alpha.2-macroglobulin, .alpha.2-macroglobulin receptor-associated protein, lactoferrin and transferrin on rat liver parenchymal cells

AUTHOR(S): Voorschuur, Armand H.; Kuiper, Johan; Van Noort, Wim L.; Van Berkel, Theo J. C.

CORPORATE SOURCE: Division of Biopharmaceutics, Center for Bio-Pharmaceutical Sciences, Leiden/Amsterdam Center for Drug Research, Sylvius Laboratories, P.O. Box 9503, Wassenaarseweg 72, RA Leiden, 2300, Neth.

SOURCE: Biochim. Biophys. Acta (1995), 1257(3), 288-92
CODEN: BBACAQ; ISSN: 0006-3002

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Periportal and perivenous rat liver parenchymal cells were isolated according to the digitonin-collagenase perfusion method. Affinities and maximal specific binding of a conjugate of glutathione S-transferase with the .alpha.2-macroglobulin receptor-assocd. protein (GST-39kDaP), of lactoferrin and of transferrin to freshly isolated periportal parenchymal cells in vitro were not significantly different from values obtained with perivenous cells. It is concluded that the receptors for these three ligands show a zonally homogeneous expression in rat liver. The zonal homogeneity in binding obsd. for GST-39kDaP is at variance with the 1.5-fold higher periportal over perivenous binding of trypsin-activated .alpha.2-macroglobulin. Since GST-39kDaP as well as trypsin-activated .alpha.2-macroglobulin are ligands for the .alpha.2-macroglobulin receptor/low-d. lipoprotein receptor-related protein, it is suggested that GST-39kDaP can bind to (an) addnl. receptor(s) with a higher perivenous expression. The zonal homogeneity obsd. with lactoferrin, an **inhibitor** of ligand binding to the lipoprotein remnant receptor, may indicate zonal homogeneity of the lipoprotein remnant receptor. The obsd. zonal homogeneity of the transferrin receptor suggests an equal and essential need for iron by parenchymal cells across the rat liver acinus in vivo.

L11 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1995:613793 CAPLUS

DOCUMENT NUMBER: 123:80327

TITLE: Effect of intracellular iron depletion by picolinic acid on expression of the **lactoferrin receptor** in the human colon carcinoma cell subclone HT29-18-C1

AUTHOR(S): Mikogami, Takashi; Marianne, Therese; Spik, Genevieve

CORPORATE SOURCE: Laboratoire Chimie Biologique, Universite Sciences Technologies Lille, Villeneuve, 59655, Fr.

SOURCE: Biochem. J. (1995), 308(2), 391-7
CODEN: BIJOAK; ISSN: 0264-6021

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A **lactoferrin receptor** has been found on the brush-border membrane of intestinal epithelial cells of several species, including humans. A role for this receptor in intestinal iron absorption, which is well regulated in response to body iron stores, has been proposed. The authors have investigated the effect of intracellular iron depletion by picolinic acid, an iron chelator, on the cell surface binding of human lactoferrin to human enterocytes and its intracellular uptake, using HT29-18-C1 cells, an enterocyte-like differentiable cell line. The confluent cells exhibited 5.8 .times. 106 specific binding sites per cell for diferric human 125I-labeled lactoferrin with relatively low affinity (Kd 8.4 .times. 10-7M). The addn. of picoline acid to the culture medium resulted in a concn.- and time-dependent increase in lactoferrin binding that was correlated with a decrease in intracellular iron content. The

max. effect of picolinic acid on lactoferrin binding (approx. 2-fold increase), which appeared between 12 and 18 h after its addn., was obtained at a picolinic acid concn. of 2 mM. Scatchard anal. showed that the enhanced lactoferrin binding resulted from an increase in the no. of lactoferrin receptors rather than an alteration in the binding affinity for lactoferrin. The time-dependent effect of picolinic acid was completely abolished in the presence of 1 .mu.M anisomycin, a protein synthesis **inhibitor**, indicating that ongoing protein synthesis is involved in this effect. The enhanced lactoferrin binding induced by picolinic acid produced an increase of approx. 30% in the uptake of lactoferrin-bound 59Fe, indicating the existence of functional receptors. These results suggest that biosynthesis of lactoferrin receptors in intestinal epithelial cells can be regulated in response to the levels of intracellular chelatable iron, consistent with intestinal iron absorption dependent on body iron stores.

L11 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1994:103094 CAPLUS
DOCUMENT NUMBER: 120:103094
TITLE: Effect of bovine milk antigens and egg lysozyme on the binding of 59Fe-lactoferrin to platelet plasma membranes
AUTHOR(S): Maneva, Ana I.; Taleva, Borislava M.; Manev, Vladi V.; Sirakov, Ljuben M.
CORPORATE SOURCE: Dep. Biochem., Med. Fac., Sofia, 1431, Bulg.
SOURCE: Int. J. Biochem. (1993), 25(12), 1785-90
CODEN: IJBOBV; ISSN: 0020-711X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Because of the structural homol. of lactoferrin and cows milk proteins they are able to influence **lactoferrins** regulatory function on the level of its binding to membrane receptors on platelets. An **inhibitory** effect of bovine .alpha.-lactalbumin and of .beta.-lactoglobulin on **lactoferrin-receptor** interaction was shown. Bovine .alpha.-lactalbumin competes with lactoferrin for the binding sites. Scatchard plot anal. of data shows one binding site for lactoferrin in the presence of .alpha.-lactalbumin with an affinity const., Ka = 0.46.times.109 mol/L and 335 receptors/cell. The **inhibitory** effect of .beta.-lactoglobulin reaches 62% and is different for the common fraction .beta.-lactoglobulin and the genetic variants .beta.-lactoglobulin A and B. .beta.-Lactoglobulin does not compete with lactoferrin for the membrane receptors. Bovine casein and egg lysozyme stimulate 59Fe-lactoferrin binding to the receptors. The mechanism of these effects is still unknown. Tested alimentary antigens are able to interact with lactoferrin and also with some platelet membrane structures. Established changes in lactoferrin binding to the platelet membrane might be in relation to **lactoferrins** regulatory function and (or) eliminating mechanisms of these alimentary antigens.

L11 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1991:654114 CAPLUS
DOCUMENT NUMBER: 115:254114
TITLE: Lactoferrin **inhibits** or promotes Legionella pneumophila intracellular multiplication in nonactivated and interferon gamma-activated human monocytes depending upon its degree of iron saturation. Iron-lactoferrin and nonphysiologic iron chelates reverse monocyte activation against Legionella pneumophila
AUTHOR(S): Byrd, Thomas F.; Horwitz, Marcus A.

CORPORATE SOURCE: Sch. Med., Univ. California, Los Angeles, CA, USA
SOURCE: J. Clin. Invest. (1991), 88(4), 1103-12
CODEN: JCINAO; ISSN: 0021-9738
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The authors have been exploring the role of iron in the pathogenesis of the intracellular bacterial pathogen L. pneumophila. L. pneumophila intracellular multiplication in human monocytes is iron dependent, and IFN.gamma.-activated monocytes **inhibit** L. pneumophila intracellular multiplication by limiting the availability of iron. The effect on L. pneumophila intracellular multiplication of lactoferrin, an iron-binding protein which is internalized via specific receptors on monocytes, and of nonphysiol. iron chelates which enter monocytes by a receptor-independent route, were studied. Apolactoferrin completely **inhibited** L. pneumophila multiplication in nonactivated monocytes, and enhanced the capacity of IFN.gamma.-activated monocytes to **inhibit** L. pneumophila intracellular multiplication. In contrast, iron-satd. lactoferrin had no effect on the already rapid rate of L. pneumophila multiplication in nonactivated monocytes. Moreover, it reversed the capacity of activated monocytes to **inhibit** L. pneumophila intracellular multiplication, demonstrating that L. pneumophila can utilize iron from the lactoferrin-**lactoferrin receptor** pathway. The capacity of iron-lactoferrin to reverse monocyte activation was dependent upon its percent iron satn. and not just its total iron content. Similarly, the nonphysiol. iron chelates ferric nitrilotriacetate and ferric ammonium citrate completely reversed and ferric pyrophosphate partially reversed the capacity of IFN.gamma.-activated monocytes to **inhibit** L. pneumophila intracellular multiplication, demonstrating that L. pneumophila can utilize iron derived from nonphysiol. iron chelates internalized by monocytes independently of the transferrin and lactoferrin endocytic pathways. This study suggests that at sites of inflammation, lactoferrin may **inhibit** or promote L. pneumophila intracellular multiplication in mononuclear phagocytes depending upon its degree of iron satn. In addn., this study suggests a potential role for PMN in host defense against L. pneumophila, providing apolactoferrin to infected monocytes, and it supports the concept that PMN and monocytes may cooperate in host defense against intracellular parasites and other pathogens.

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L14 10 L3 AND L5

=> d iall 1-10

L14 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:682302 CAPLUS
DOCUMENT NUMBER: 129:285991
TITLE: Use of lactoferrin in the treatment of allergen-induced disorders
INVENTOR(S): Kimber, Ian; Cumberbatch, Marie; Dearman, Rebecca J.; Conneely, Orla M.; Ward, Pauline
PATENT ASSIGNEE(S): Agennix, Inc., USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: A61K038-40
CLASSIFICATION: 1-7 (Pharmacology)

Section cross-reference(s): 62, 63
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9844940	A1	19981015	WO 1998-US7234	19980410
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9869647	A1	19981030	AU 1998-69647	19980410
EP 979099	A1	20000216	EP 1998-915471	19980410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			US 1997-41890	19970410
			WO 1998-US7234	19980410

ABSTRACT:
The present invention relates to pharmaceutical compns. and methods using lactoferrin for treating allergic disorders characterized by a local immune response including inflammatory skin reactions, asthma, and arthritis.

SUPPL. TERM: lactoferrin allergen disorder immune response; skin inflammation asthma arthritis lactoferrin

INDEX TERM: Cell migration
(Langerhans' cell; lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: UV radiation
(UV-induced inflammation; lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Face
(facial skin aging; lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Skin aging
(facial; lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Diapers
Infant
(infant diaper rash; lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Allergy inhibitors
Anti-inflammatory drugs
Antiarthritics
Antiasthmatics
Bronchitis
Contact dermatitis
Cosmetics
Dendritic cell
Dermatitis
Drug delivery systems
Keratinocyte
Langerhans' cell
Photoprotectants
Psoriasis
Pulmonary inflammation
Rhinitis
Wrinkle-preventing cosmetics
(lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Hydroxy carboxylic acids
ROLE: ADV (Adverse effect, including toxicity); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Interleukin 1.beta.
ROLE: BAC (Biological activity or effector, except adverse);
BPR (Biological process); BIOL (Biological study); PROC (Process)
(lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: **Lactoferrins**
ROLE: BAC (Biological activity or effector, except adverse);
THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Lactoferrin receptors
Tumor necrosis factor .alpha.
ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Skin diseases
(rash, infant diaper rash; lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: Respiratory tract diseases
(sinusitis; lactoferrin in the treatment of allergen-induced disorders)

INDEX TERM: 302-79-4, Tretinoin
ROLE: ADV (Adverse effect, including toxicity); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lactoferrin in the treatment of allergen-induced disorders)

L14 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:268327 CAPLUS
DOCUMENT NUMBER: 128:326335
TITLE: Hypoallergenic compositions and compositions for treatment of sensitive skin
INVENTOR(S): Castelli, Dominique; Ries, Gerd; Friteau, Laurence; Bousigniere, Elisabeth; Fredon, Laurent
PATENT ASSIGNEE(S): ROC, Fr.; Castelli, Dominique; Ries, Gerd; Friteau, Laurence; Bousigniere, Elisabeth; Fredon, Laurent
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: A61K007-48
CLASSIFICATION: 62-4 (Essential Oils and Cosmetics)
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9817246	A1	19980430	WO 1997-IB1318	19971021

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

FR 2754713	A1	19980424	FR 1996-12821	19961022
FR 2754713	B1	19990108		
AU 9744703	A1	19980515	AU 1997-44703	19971021
BR 9712648	A	19991026	BR 1997-12648	19971021
EP 955995	A1	19991117	EP 1997-943120	19971021

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRIORITY APPLN. INFO.:	FR 1996-12821	19961022
	WO 1997-IB1318	19971021

ABSTRACT:
A synergistic combination of .gtoreq.2 of (a) an anti-radical agent, (b) an anti-inflammatory agent, and (c) an anti-allergy agent is used for prepn. of a compn. for treatment of sensitive skin and/or skin allergy. The anti-radical agent is a radical scavenger, inhibitor of lipid peroxidn., or stimulant of endogenous prodn. of radical-degrading enzymes. The anti-inflammatory agent is
a prostaglandin antagonist (cyclooxygenase inhibitor) or an inhibitor of prodn.
of cytokines, leukotrienes, or reactive nitro compds. The anti-allergy agent is an inhibitor of lymphocyte proliferation, of histocompatibility antigen receptor internalization, or of cytokine prodn. The combination inhibits the synthesis and/or expression of neuromediators such as neurokinins A and B, vasoactive intestinal polypeptide, neuropeptide Y, neurotensin, and NGF. Thus,
dried Ginkgo biloba leaves were extd. to remove chlorophyll, lipids, waxes, lectins, etc. A combination of the Ginkgo extn. residue (5 mg/mL) and carboxymethyl-.beta.-glucan (5 mg/mL) synergistically inhibited NO2- formation,
TNF formation, and CD23 expression in cultured human keratinocytes after stimulation with a combination of IFN-.gamma. and Escherichia coli lipopolysaccharide. Similar results were obtained after stimulation of the cells with IL-4 and IgE-contg. immune complexes. A suitable compn. contained tretinoin 0.05, .beta.-glucan 0.50, G. biloba ext. 0.10, light liq. paraffin 25.00, 70% sorbitol soln. 5.00, hydroxyoctacosanyl hydroxystearate 5.00, methoxy-Macrogol 22/dodecyl glycol copolymer 5.00, Macrogol 45/dodecyl glycol copolymer 3.00, stearoxytrimethylsilane + stearyl alc. 1.00, dimethicone 1.00, fragrance 0.25, Me p-hydroxybenzoate 0.20, Na edetate 0.10, Quaternium 15 0.10,
BHT 0.10, citric acid monohydrate 0.10, and H2O 53.495 g.

SUPPL. TERM: skin irritation treatment radical antagonist; inflammation inhibitor sensitive skin; allergy inhibitor sensitive skin

INDEX TERM: Prostaglandins
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(antagonists; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Skin diseases
(dry skin; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Scutellaria
(ext.; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Receptors
ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(for HLA antigens, internalization of, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Cytokines
Leukotrienes

Neurohormones
Tumor necrosis factors
ROLE: MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(formation of, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Tea products
(green; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Allergy inhibitors
Alopecia
Anti-inflammatory drugs
Atopy
Decolorizing agents
Dermatitis
Ginkgo biloba
Immunosuppressants
Keratinocyte
Lupus erythematosus
Macrophage
Psoriasis
Radical scavengers
Skin irritation
Sunscreens
Synergistic drug interactions
(hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Radicals, biological studies
ROLE: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: **Lactoferrins**
Retinoids
ROLE: BAC (Biological activity or effector, except adverse);
THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Lymphocyte proliferation
(inhibitors; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: HLA antigens
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(internalization of receptors for, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Erythema
(multiforme; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: **Dermatitis**
(neurodermatitis; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Endocytosis
(of HLA receptors, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Peroxidation
(of lipids, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Skin diseases
(pemphigus; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Lipids, biological studies

ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(peroxidn. of, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Saccharomyces cerevisiae
(polyglucopyranose from membranes of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Enzymes, biological studies
ROLE: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radical-scavenging; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: Skin diseases
(rosacea; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: 14797-65-0, Nitrite, biological studies
ROLE: MFM (Metabolic formation); BIOL (Biological Study); FORM (Formation, nonpreparative)
(formation of, inhibitors of; hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: 50-81-7, Vitamin C, biological studies 58-95-7, Tocopheryl acetate 59-02-9, .alpha.-Tocopherol 59-02-9D, .alpha.-Tocopherol, derivs. 68-26-8, Retinol 70-18-8, Glutathione, biological studies 81-13-0, D-Panthenol 83-46-5, .beta.-Sitosterol 288-32-4D, Imidazole, derivs. 302-79-4, Tretinoin 471-53-4, 18.beta.-Glycyrrhetinic acid 9041-22-9, .beta.-Glucan 9041-22-9D, .beta.-Glucan, derivs. 9051-97-2, Drieline 13832-70-7, Stearyl glycyrrhetinate 25378-27-2, Eicosapentaenoic acid 34096-83-8 35041-16-8 37306-44-8D, Triazole, derivs. 71276-50-1, .alpha.-Tocopherol phosphate 78922-62-0, Thymulin 133875-94-2
ROLE: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hypoallergenic compns. and compns. for treatment of sensitive skin)

INDEX TERM: 9054-89-1, Superoxide dismutase
ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(hypoallergenic compns. and compns. for treatment of sensitive skin)

L14 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1998:18063 CAPLUS
DOCUMENT NUMBER: 128:74071
TITLE: Regulation of IgE synthesis, proliferation, and development of Aids
AUTHOR(S): Kiehl, Reinhold
CORPORATE SOURCE: Inst. Molecular Medicine/Biology, Reinhold Kiehl Labor- Forschungs G.m.b.H., Furth im Wald, D-93437, Germany
SOURCE: Bioforum (1997), 20(12), 686-690
CODEN: BFRME3; ISSN: 0940-0079
PUBLISHER: GIT Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: German
CLASSIFICATION: 15-3 (Immunochemistry)
Section cross-reference(s): 14

ABSTRACT:
To study the regulation of IgE synthesis, blood of patients with atopic eczema was incubated with .gamma.-interferon, interleukin-4, heavy metals, EDTA, a

serine protease inhibitor (APMSF), the protein synthesis inhibitor cycloheximide, and with thiol reagents. Blood IgE was influenced by the metalloprotease activator Hg. 10 MM of the metalloprotease inhibitor EDTA increased IgE, the increase was not inhibited by APMSF. Cycloheximide and the thiol reagent diamide (1 mM) decreased blood IgE. Blood IgE was reduced by 500
U/mL .gamma.-interferon, when 1 mM Hg was added, without Hg, a 100 times higher
concn. of .gamma.-interferon was necessary. Interleukin-4 reduced blood IgE at
1000 U/mL. The regulation of IgE synthesis is discussed and proposals are made
for diagnosis and therapy of atopic eczema, leukemia, and aids.

SUPPL. TERM: IgE gamma interferon mercury atopic eczema; interleukin 4 IgE atopic eczema; metalloprotease EDTA cycloheximid diamide
IgE regulation
INDEX TERM: AIDS (disease)
Atopic **dermatitis**
Leukemia
(regulation of IgE synthesis, proliferation, and development of AIDS, atopic eczema, and leukemia)
INDEX TERM: Interferon .gamma.
Interleukin 2
Interleukin 4
ROLE: BAC (Biological activity or effector, except adverse);
BIOL (Biological study)
(regulation of IgE synthesis, proliferation, and development of AIDS, atopic eczema, and leukemia)
INDEX TERM: **Lactoferrins**
ROLE: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
(regulation of IgE synthesis, proliferation, and development of AIDS, atopic eczema, and leukemia)
INDEX TERM: IgE
ROLE: BPR (Biological process); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(regulation of IgE synthesis, proliferation, and development of AIDS, atopic eczema, and leukemia)
INDEX TERM: 7439-97-6, Mercury, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 9001-12-1, Collagenase
ROLE: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
(blood; regulation of IgE synthesis, proliferation, and development of AIDS, atopic eczema, and leukemia)
INDEX TERM: 60-00-4, EDTA, biological studies 81669-70-7, Metalloprotease
ROLE: BAC (Biological activity or effector, except adverse);
BIOL (Biological study)
(regulation of IgE synthesis, proliferation, and development of AIDS, atopic eczema, and leukemia)
INDEX TERM: 9005-49-6, Heparin, biological studies 9040-48-6, Gelatinase
ROLE: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
(regulation of IgE synthesis, proliferation, and development of AIDS, atopic eczema, and leukemia)

L14 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:505034 CAPLUS

DOCUMENT NUMBER: 127:233315
TITLE: Detection of specific IgE to human milk proteins in sera of atopic infants
AUTHOR(S): Cantisani, Annamaria; Giuffrida, Maria Gabriella; Fabris, Claudio; Bertino, Enrico; Coscia, Alessandra; Oggero, Roberto; Monti, Giovanna; Stroppiana, Paola; Conti, Amedeo
CORPORATE SOURCE: Centro Studio Alimentazione Animali, CNR, via P. Giuria 7, Turin, Italy
SOURCE: FEBS Lett. (1997), 412(3), 515-517
CODEN: FEBLAL; ISSN: 0014-5793
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
CLASSIFICATION: 15-3 (Immunochemistry)
Section cross-reference(s): 13, 18

ABSTRACT:
Specific IgE (sIgE) for cow's milk proteins (CMP) have been reported to be present in blood sera of exclusively breast-fed infants. The aim of this study was to find whether the presence of sIgE to human milk proteins in the sera of exclusively breast-fed infants could explain the apparent detection of sIgE to CMP in infants that were never previously in contact with cow's milk. SIgE for human milk whey proteins were found in the blood sera of atopic infants, and these sIgE strongly cross-reacted with the corresponding CMP. In none of the sera examd. were sIgE to bovine .beta.-lactoglobulin detected.

SUPPL. TERM: IgE anti human milk proteins infant; **dermatitis** infant IgE anti human milk
INDEX TERM: **Lactoferrins**
Serum albumin
.alpha.-Lactalbumins
ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(specific IgE for human milk whey proteins (lactoferrin, serum albumin, .beta.-casein and .alpha.-lactalbumin) present in blood serum of atopic infants, IgE strongly cross-react with corresponding cow's milk proteins)
INDEX TERM: Atopic **dermatitis**
Blood analysis
Breast feeding
Human milk
Infant
Milk
Serum (blood)
(specific IgE for human milk whey proteins present in blood serum of atopic infants, IgE strongly cross-react with corresponding cow's milk proteins)
INDEX TERM: IgE
ROLE: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
(specific IgE for human milk whey proteins present in blood serum of atopic infants, IgE strongly cross-react with corresponding cow's milk proteins)
INDEX TERM: Whey proteins
ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(specific IgE for human milk whey proteins present in blood serum of atopic infants, IgE strongly cross-react with corresponding cow's milk proteins)
INDEX TERM: Caseins, biological studies
ROLE: BPR (Biological process); BIOL (Biological study);

PROC (Process)
(.beta.-; specific IgE for human milk whey proteins (lactoferrin, serum albumin, .beta.-casein and .alpha.-lactalbumin) present in blood serum of atopic infants, IgE strongly cross-react with corresponding cow's milk proteins)

L14 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:145305 CAPLUS
DOCUMENT NUMBER: 126:162307
TITLE: Topical preparations containing vitamin C derivatives for treatment of skin inflammations and aging
INVENTOR(S): Akyama, Junichi; Yamamoto, Itaru
PATENT ASSIGNEE(S): Kaminomoto Honho Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
INT. PATENT CLASSIF.:
MAIN: A61K031-70
SECONDARY: A61K007-00; A61K007-48; A61K031-405; A61K031-60; A61K031-665
CLASSIFICATION: 63-6 (Pharmaceuticals)
Section cross-reference(s): 62
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08333260	A2	19961217	JP 1995-163046	19950606

ABSTRACT:
Vitamin C derivs., i.e. ascorbic acid phosphate salts and ascorbic acid glycosides, are effective for the treatment of skin inflammations and prevention of the aging. Topical prepns. may further contain an anti-inflammatory agent selected from the group consisting of indomethacin, glycyrrhizinic acid, glycyrrhetin, aspirin, and mixts. thereof and a lipid peroxide inhibitory agent selected from the group consisting of vitamin E, .beta.-carotene, lactoferrin, cactus ext., aloe ext., deferoxamine, BHA, BHT, and transferrin. An emulsion contg. L-ascorbic acid 2-glucoside 4, indomethacin 0.1 %, and other ingredients was formulated.

SUPPL. TERM: topical ascorbate antiinflammatory lipid peroxide inhibitor;
skin inflammation ascorbate glucoside indomethacin;
antiaging cosmetic vitamin C deriv
INDEX TERM: Aloe (genus)
Cactus (Cactaceae)
(exts.; topical prepns. contg. vitamin C derivs. and anti-inflammatory agents and/or lipid peroxide inhibitory
agents)
INDEX TERM: Skin aging
(prevention of; topical prepns. contg. vitamin C derivs. and anti-inflammatory agents and/or lipid peroxide inhibitory agents)
INDEX TERM: Antiaging cosmetics
Anti-inflammatory drugs
Creams (drug delivery systems)
Emulsions (drug delivery systems)
(topical prepns. contg. vitamin C derivs. and anti-inflammatory agents and/or lipid peroxide inhibitory
agents)
INDEX TERM: Lipid peroxides
ROLE: BPR (Biological process); BIOL (Biological study);

PROC (Process)
(topical prepns. contg. vitamin C derivs. and anti-inflammatory agents and/or lipid peroxide inhibitory agents)

INDEX TERM: **Lactoferrins**
Transferrins
ROLE: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical prepns. contg. vitamin C derivs. and anti-inflammatory agents and/or lipid peroxide inhibitory agents)

INDEX TERM: **Dermatitis**
(treatment of; topical prepns. contg. vitamin C derivs. and anti-inflammatory agents and/or lipid peroxide inhibitory agents)

INDEX TERM: 50-78-2, Aspirin 53-86-1, Indomethacin 70-51-9, Deferoxamine 128-37-0, BHT, biological studies 471-53-4,
Glycyrrhetin 1405-86-3, Glycyrrhizinic acid 1406-18-4, Vitamin E 7235-40-7, .beta.-Carotene 25013-16-5, BHA 68797-35-3, Glycyrrhizinic acid dipotassium salt 84309-23-9, Ascorbic acid 2-phosphate magnesium salt 129499-78-1
ROLE: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical prepns. contg. vitamin C derivs. and anti-inflammatory agents and/or lipid peroxide inhibitory agents)

L14 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1995:950723 CAPLUS
DOCUMENT NUMBER: 123:337318
TITLE: Effects of bovine .kappa.-casein and lactoferrin on several experimental models of allergic diseases
AUTHOR(S): Otani, H.; Yamada, Y.
CORPORATE SOURCE: Lab. Appl. Biochem. Animals Products, Shinshu UNiv., Minamiminowa, 399-45, Japan
SOURCE: Milchwissenschaft (1995), 50(10), 549-53
CODEN: MILCAD; ISSN: 0026-3788
DOCUMENT TYPE: Journal
LANGUAGE: English
CLASSIFICATION: 15-9 (Immunochemistry)
ABSTRACT:
Effects of bovine .kappa.-casein, lactoferrin and peptic lactoferrin on vascular permeability, in vivo histamine release, complement-dependent cytolysis, reversed passive Arthus reaction, picryl chloride-induced ***contact*** **dermatitis** and delayed-type hypersensitivity were studied using exptl. animal models. All proteins tested, i.e., .kappa.-casein, lactoferrin and peptic lactoferrin, increased the vascular permeability in guinea pigs. .kappa.-Casein and lactoferrin inhibited in vitro histamine release from rat mast cells, whereas peptic lactoferrin did not. Moreover, lactoferrin inhibited complement-dependent cytolysis to sheep red blood cells (SRBC) in a dose-dependent fashion, whereas .kappa.-casein and peptic lactoferrin had no effect. Arthur reaction, picryl chloride-induced ***contact*** **dermatitis** and delayed-type hypersensitivity to SRBC were not modulated by any of these 3 proteins. These results indicate that bovine K-casein and lactoferrin suppressed a passive cutaneous anaphylactic reaction via inhibiting the vasoactive amine release whereas these same proteins had no effect on the Arthus reaction or delayed-type hypersensitivity.

SUPPL. TERM: casein lactoferrin allergy
INDEX TERM: Mast cell
(effects of .kappa.-casein and lactoferrin on histamine release from mast cells)
INDEX TERM: Arthus phenomenon
(effects of .kappa.-casein and lactoferrin on several exptl. models of allergic diseases)
INDEX TERM: **Lactoferrins**
ROLE: BAC (Biological activity or effector, except adverse);
BIOL (Biological study)
(effects of .kappa.-casein and lactoferrin on several exptl. models of allergic diseases)
INDEX TERM: Blood vessel
(effects of .kappa.-casein and lactoferrin on vascular permeability)
INDEX TERM: **Dermatitis**
(contact, effects of .kappa.-casein and lactoferrin on several exptl. models of allergic diseases)
INDEX TERM: Allergy
(delayed hypersensitivity, effects of .kappa.-casein and lactoferrin on several exptl. models of allergic diseases)
INDEX TERM: Skin, disease
(passive cutaneous anaphylaxis, effects of .kappa.-casein
and lactoferrin on several exptl. models of allergic diseases)
INDEX TERM: Biological transport
(permeation, effects of .kappa.-casein and lactoferrin on
vascular permeability)
INDEX TERM: Caseins, biological studies
ROLE: BAC (Biological activity or effector, except adverse);
BIOL (Biological study)
(.kappa.-, effects of .kappa.-casein and lactoferrin on several exptl. models of allergic diseases)
INDEX TERM: 51-45-6, Histamine, biological studies
ROLE: BPR (Biological process); BIOL (Biological study); PROC (Process)
(effects of .kappa.-casein and lactoferrin on histamine release from mast cells)

L14 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1990:457245 CAPLUS
DOCUMENT NUMBER: 113:57245
TITLE: Release of lactoferrin and elastase in human allergic skin reactions
AUTHOR(S): Zweiman, Burton; Kucich, Umberto; Shalit, Meir; Von Allmen, Carolyn; Moskovitz, Anne; Weinbaum, George; Atkins, Paul C.
CORPORATE SOURCE: Sch. Med., Univ. Pennsylvania, Philadelphia, PA, 19104, USA
SOURCE: J. Immunol. (1990), 144(10), 3953-60
CODEN: JOIMA3; ISSN: 0022-1767
DOCUMENT TYPE: Journal
LANGUAGE: English
CLASSIFICATION: 15-9 (Immunochemistry)
ABSTRACT:
To det. whether neutrophils in human allergic skin reaction sites release components that may be pathogenic in allergic reactions, the patterns of release of 5 components were compared: 1) lactoferrin, present in specific granules; 2) and 3) elastase and myeloperoxidase, present mainly in azurophilic

granules; 4) lactic dehydrogenase, a cytosolic component generally released during cell damage; 5) histamine, present in mast cells and basophils but not in neutrophils. In 13 pollen-sensitive subjects, continuous antigen challenge for 5 h led to a peak of histamine release into overlying skin chambers during the 1st h, followed by a plateau of low level histamine release over the succeeding 4 h. In contrast, there was no increased release of lactoferrin or elastase during the first h, but there was increased accumulation of these components at antigen (Ag) challenge sites over the next 4 h. There was no significant difference at Ag vs buffer control sites in the levels of either myeloperoxidase or lactic dehydrogenase. The increased levels of lactoferrin and elastase at antigen challenge sites in the 2nd to 5th h were not simply a reflection of the greater nos. of neutrophils present in such sites, because the levels of these components did not correlate with the no. of neutrophils in
chamber fluids obtained from individual sites. However, such lactoferrin levels did not correlate with the amt. of histamine released earlier during the
1st h of Ag challenge at individual sites. These findings suggest a selective in vivo release of neutrophil components in IgE-mediated human allergic skin reactions, possibly related in degree to earlier mast cell activation. Inasmuch as lactoferrin likely plays a role in reactive oxidants effects and elastase is a potent nonspecific protease, release of these agents could play a
pathogenic role in late phase allergic reactions.

SUPPL. TERM: skin allergy lactoferrin elastase
INDEX TERM: Neutrophil
(in allergic skin reaction, of human, elastase and lactoferrin release in relation to)
INDEX TERM: **Lactoferrins**
ROLE: BIOL (Biological study)
(release of, in allergic skin reaction, of human)
INDEX TERM: **Dermatitis**
(allergic, elastase and lactoferrin release in, of human)
INDEX TERM: 51-45-6, Histamine, biological studies 9001-60-9, Lactate dehydrogenase 9003-99-0, Myeloperoxidase 9004-06-2, Elastase
ROLE: BIOL (Biological study)
(release of, in allergic skin reaction, of human)

L14 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1989:619317 CAPLUS
DOCUMENT NUMBER: 111:219317
TITLE: Transdermal preparations containing immunoglobulin A and lactoferrin for treatment of **dermatitis**
INVENTOR(S): Okada, Tomio; Tanaka, Hiroshi
PATENT ASSIGNEE(S): Nonogawa Shoji Y. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
INT. PATENT CLASSIF.:
MAIN: A61K039-395
SECONDARY: A61K007-00
INDEX: A61K039-395, A61K037-14
CLASSIFICATION: 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 62
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01135726	A2	19890529	JP 1987-292738	19871119
JP 08013754	B4	19960214		

ABSTRACT:
Transdermal prepns., which have high selectivity for Staphylococcus aureus and are useful for treatment of bacteria-caused or atopic **dermatitis**, contain secretory component-conjugated IgA and lactoferrin. White vaselin 40.0, cetanol 10.0, beeswax 5.0, sorbitan sesquioleate 5.0, Lauromacrogol 0.5, Bu p-hydroxybenzoate 0.01, Me p-hydroxybenzoate 0.01, secretory component-conjugated IgA 0.3, and lactoferrin 0.5% by wt. were mixed to give an ointment, which was effective for pyoderma and atopic **dermatitis** in humans.

SUPPL. TERM: transdermal Ig lactoferrin **dermatitis**
INDEX TERM: Staphylococcus aureus
(bactericide for, IgA-lactoferrin mixt. as, for treatment of **dermatitis**)
INDEX TERM: Cosmetics
(contg. IgA and lactoferrin, for treatment of bacteria-caused or atopic **dermatitis**)
INDEX TERM: **Lactoferrins**
ROLE: PREP (Preparation)
(transdermal prepns. contg. IgA and, for treatment of bacteria-caused or atopic **dermatitis**)
INDEX TERM: Immunoglobulins
ROLE: PREP (Preparation)
(A, transdermal prepns. contg. lactoferrin and, for treatment of bacteria-caused or atopic **dermatitis**)
INDEX TERM: **Dermatitis**
(atopic, treatment of, transdermal prepns. contg. IgA and lactoferrin for)
INDEX TERM: Bactericides, Disinfectants, and Antiseptics
(medical, mixt. with IgA and lactoferrin, for treatment of **dermatitis**)
INDEX TERM: Skin, disease or disorder
(pyoderma, treatment of, transdermal prepns. contg. IgA and lactoferrin for)
INDEX TERM: Pharmaceutical dosage forms
(transdermal, of IgA-lactoferrin mixt., for treatment of bacteria-caused or atopic **dermatitis**)

L14 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1988:226674 CAPLUS
DOCUMENT NUMBER: 108:226674
TITLE: Cosmetics containing **lactoferrins** for the delay of aging of the skin
INVENTOR(S): Greff, Daniel
PATENT ASSIGNEE(S): SEDERMA S.a r.l., Fr.
SOURCE: Fr. Demande, 4 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
INT. PATENT CLASSIF.:
MAIN: A61K007-48
ADDITIONAL: C07K015-06; C07K015-22
CLASSIFICATION: 62-4 (Essential Oils and Cosmetics)
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2596986	A1	19871016	FR 1986-5183	19860411
FR 2596986	B1	19880923		
FR 2641696	A2	19900720	FR 1989-638	19890118

FR 2641696 B2 19910308
PRIORITY APPLN. INFO.: FR 1986-5183 19860411
ABSTRACT:
A cosmetic contains **lactoferrins** (I) as free radical scavengers. I may be present in liposome encapsulated formulations. The compn. furthermore contains antioxidants. The cosmetic is useful for the delay of aging of the skin and for soothing inflammation and solar erythema.

SUPPL. TERM: lactoferrin cosmetic; skin aging cosmetic lactoferrin
INDEX TERM: **Lactoferrins**
ROLE: BIOL (Biological study)
(cosmetics contg.)
INDEX TERM: Antioxidants
(cosmetics contg. **lactoferrins** and)
INDEX TERM: **Dermatitis**
Sunburn and Suntan
(treatment of, cosmetics contg. **lactoferrins** for)

L14 ANSWER 10 OF 10 BIOSIS COPYRIGHT 2000 BIOSIS
ACCESSION NUMBER: 1996:15421 BIOSIS
DOCUMENT NUMBER: PREV199698587556
TITLE: Effects of bovine kappa-casein and **lactoferrins** on several experimental models of allergic diseases.
AUTHOR(S): Otani, H.; Yamada, Y.
CORPORATE SOURCE: Lab. Applied Biochemistry Animal Products, Faculty Agriculture, Shinshu Univ., Minamiminowa-mura 399-45 Japan
SOURCE: Milchwissenschaft, (1995) Vol. 50, No. 10, pp. 549-552. ISSN: 0026-3788.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English; German
ABSTRACT:
Effects of bovine kappa-casein, lactoferrin and peptic lactoferrin on vascular permeability, in vitro histamine release, complement-dependent cytolysis, reversed passive Arthus reaction, picryl chloride-induced **contact** ***dermatitis*** and delayed-type hypersensitivity were studied using experimental animal models. All proteins tested, ie., kappa-casein, lactoferrin
and peptic lactoferrin, increased the vascular permeability in guinea pigs. kappa-Casein and lactoferrin obviously inhibited in vitro histamine release from rat mast cells, whereas peptic lactoferrin did not. Moreover, lactoferrin inhibited complement-dependent cytolysis to sheep red blood cells (SRBC) in a dose-dependent fashion, whereas kappa-casein and peptic lactoferrin had no effect. Arthus reaction, picryl chloride-induced **contact** ***dermatitis*** and delayed-type hypersensitivity to SRBC were not modulated
by any of these 3 proteins. These results indicate that bovine kappa-casein and
lactoferrin suppressed a passive cutaneous anaphylactic reaction via inhibiting
the vasoactive amine release whereas these same proteins had no effect on the Arthus reaction or delayed-type hypersensitivity.
CONCEPT CODE: Cytology and Cytochemistry - Animal *02506
Biochemical Methods - Proteins, Peptides and Amino Acids *10054
Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Biophysics - General Biophysical Techniques *10504
Biophysics - Molecular Properties and Macromolecules *10506
Enzymes - Physiological Studies *10808
Physiology, General and Miscellaneous - General *12002
Physiology, General and Miscellaneous - Comparative *12003

Pathology, General and Miscellaneous - General *12502
Pathology, General and Miscellaneous - Comparative
*12503
Pathology, General and Miscellaneous - Inflammation and
Inflammatory Disease *12508
Metabolism - Proteins, Peptides and Amino Acids *13012
Food Technology - Dairy Products *13518
Cardiovascular System - Physiology and Biochemistry
*14504
Blood, Blood-Forming Organs and Body Fluids - Blood and
Lymph Studies *15002
Blood, Blood-Forming Organs and Body Fluids - Blood Cell
Studies *15004
Blood, Blood-Forming Organs and Body Fluids - Lymphatic
Tissue and Reticuloendothelial System *15008
Reproductive System - Physiology and Biochemistry *16504
Endocrine System - General *17002
Integumentary System - Pathology *18506
Toxicology - Foods, Food Residues, Additives and
Preservatives *22502
Immunology and Immunochemistry - General; Methods *34502
Immunology and Immunochemistry - Immunopathology, Tissue
Immunology *34508
Allergy *35500
BIOSYSTEMATIC CODE: Bovidae 85715
Caviidae 86300
Muridae *86375
INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Blood and
Lymphatics
(Transport and Circulation); Cardiovascular System
(Transport and Circulation); Cell Biology; Endocrine
System
(Chemical Coordination and Homeostasis); Enzymology
(Biochemistry and Molecular Biophysics); Foods; Immune
System (Chemical Coordination and Homeostasis);
Integumentary System (Chemical Coordination and
Homeostasis); Metabolism; Methods and Techniques;
Pathology; Physiology; Reproductive System (Reproduction);
Toxicology
INDEX TERMS: Miscellaneous Descriptors
ANAPHYLAXIS; ANIMAL MODELS; ARTHUS REACTION;
CONTACT DERMATITIS; DAIRY PRODUCT;
DELAYED-TYPE HYPERSENSITIVITY; FOOD ALLERGY; FOOD
CHEMISTRY; MAST CELLS; METHODS
ORGANISM: Super Taxa
Bovidae: Artiodactyla, Mammalia, Vertebrata, Chordata,
Animalia; Caviidae: Rodentia, Mammalia, Vertebrata,
Chordata, Animalia; Mammalia - Unspecified: Mammalia,
Vertebrata, Chordata, Animalia; Muridae: Rodentia,
Mammalia, Vertebrata, Chordata, Animalia
ORGANISM: Organism Name
guinea-pig (Caviidae); mammal (Mammalia - Unspecified);
rat
(Muridae); Bovidae (Bovidae)
ORGANISM: Organism Superterms
animals; artiodactyls; chordates; mammals; nonhuman
mammals; nonhuman vertebrates; rodents; vertebrates

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L15 16 L3 AND L2

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L16 12 L15 AND INHIBIT?

=> d ibib abs 1-12

L16 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:795994 CAPLUS
DOCUMENT NUMBER: 132:31744
TITLE: Gene probes used for genetic profiling in healthcare screening and planning
INVENTOR(S): Roberts, Gareth Wyn
PATENT ASSIGNEE(S): Genostic Pharma Ltd., UK
SOURCE: PCT Int. Appl., 745 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964627	A2	19991216	WO 1999-GB1780	19990604

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:	
GB 1998-12099	19980606
GB 1998-13291	19980620
GB 1998-13611	19980624
GB 1998-13835	19980627
GB 1998-14110	19980701
GB 1998-14580	19980707
GB 1998-15438	19980716
GB 1998-15574	19980718
GB 1998-15576	19980718
GB 1998-16085	19980724
GB 1998-16086	19980724
GB 1998-16921	19980805
GB 1998-17097	19980807
GB 1998-17200	19980808
GB 1998-17632	19980814
GB 1998-17943	19980819

AB There is considerable evidence that significant factor underlying the individual variability in response to disease, therapy and prognosis lies in a person's genetic make-up. There have been numerous examples relating that polymorphisms within a given gene can alter the functionality of the protein encoded by that gene thus leading to a variable physiol. response.

In order to bring about the integration of genomics into medical practice and enable design and building of a technol. platform which will enable the everyday practice of mol. medicine a way must be invented for the DNA sequence data to be aligned with the identification of genes central to the induction, development, progression and outcome of disease or physiol. states of interest. According to the invention, the no. of genes and their configurations (mutations and polymorphisms) needed to be identified in order to provide crit. clin. information concerning individual

prognosis is considerably less than the 100,000 thought to comprise the human genome. The identification of the identity of the core group of genes enables the invention of a design for genetic profiling technologies which comprises of the identification of the core group of genes and their sequence variants required to provide a broad base of clin. prognostic information - "genostics". The "Genostic.RTM." profiling of patients and persons will radically enhance the ability of clinicians, healthcare professionals and other parties to plan and manage healthcare provision and the targeting of appropriate healthcare resources to those deemed most in need. The use of this invention could also lead to a host of new applications for such profiling technologies, such as identification of persons with particular work or environment related risk, selection of applicants for employment, training or specific opportunities or for the enhancing of the planning and organization of health services, education services and social services.

L16 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:795993 CAPLUS
DOCUMENT NUMBER: 132:31743
TITLE: Gene probes used for genetic profiling in healthcare screening and planning
INVENTOR(S): Roberts, Gareth Wyn
PATENT ASSIGNEE(S): Genostic Pharma Limited, UK
SOURCE: PCT Int. Appl., 149 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964626	A2	19991216	WO 1999-GB1779	19990604
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			GB 1998-12098	19980606
			GB 1998-28289	19981223

AB There is considerable evidence that significant factor underlying the individual variability in response to disease, therapy and prognosis lies in a person's genetic make-up. There have been numerous examples relating that polymorphisms within a given gene can alter the functionality of the protein encoded by that gene thus leading to a variable physiol. response. In order to bring about the integration of genomics into medical practice and enable design and building of a technol. platform which will enable the everyday practice of mol. medicine a way must be invented for the DNA sequence data to be aligned with the identification of genes central to the induction, development, progression and outcome of disease or physiol. states of interest. According to the invention, the no. of genes and their configurations (mutations and polymorphisms) needed to be identified in order to provide crit. clin. information concerning individual prognosis is considerably less than the 100,000 thought to comprise the

human genome. The identification of the identity of the core group of genes enables the invention of a design for genetic profiling technologies.

L16 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:288679 CAPLUS
DOCUMENT NUMBER: 131:86406
TITLE: CCAAT/enhancer binding protein .epsilon. is critical for effective neutrophil-mediated response to inflammatory challenge
AUTHOR(S): Lekstrom-Himes, Julie; Xanthopoulos, Kleanthis G.
CORPORATE SOURCE: Clinical Gene Therapy Branch, National Human Genome Research Institute, National Institutes of Health, Bethesda, MD, USA
SOURCE: Blood (1999), 93(9), 3096-3105
CODEN: BLOOAW; ISSN: 0006-4971
PUBLISHER: W. B. Saunders Co.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Targeted mutation of CCAAT/enhancer-binding protein (C/EBP) .epsilon. in mice results in early death, primarily due to spontaneous infection with Pseudomonas aeruginosa. Functional anal. of C/EBP.epsilon.-deficient neutrophils, in an in vivo model of peritoneal inflammation, shows multiple defects. Redn. of phagocytotic killing by C/EBP.epsilon.-deficient neutrophils is a result of decreased uptake of opsonized bacteria as well as little to no expression of secondary granule proteins.
Abnormalities in neutrophil migration detected in a chem. peritonitis model are likely secondary to abnormal CD11b integrin and L-selectin expression on C/EBP.epsilon.-deficient neutrophils. Alterations in neutrophil cytokine expression in response to inflammation show decreased levels of interleukin-1 receptor antagonist (IL-1Ra) and increased levels of tumor necrosis factor-.alpha. (TNF-.alpha.) expression by C/EBP.epsilon.-deficient neutrophils. Addnl., TNF-.alpha. expression is increased in nonactivated, circulating C/EBP.epsilon.-deficient neutrophils. Overall, C/EBP.epsilon.-deficient neutrophils are severely functionally impaired, evoking an abnormal microenvironment, which may contribute to the loss of normal responses to inflammatory stimuli. Similarities between the C/EBP.epsilon.-deficient mouse model and the human disease, specific granule deficiency, will be discussed.

L16 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:797272 CAPLUS
DOCUMENT NUMBER: 130:208651
TITLE: Lactoferrin and interleukin-6 interaction in amniotic infection
AUTHOR(S): Otsuki, Katufumi; Yoda, Aki; Toma, Yoshiro; Shimizu, Yukiko; Saito, Hiroshi; Yanaihara, Takumi
CORPORATE SOURCE: Department of Obstetrics and Gynecology, Showa University School of Medicine, Tokyo, Japan
SOURCE: Adv. Exp. Med. Biol. (1998), 443(Advances in Lactoferrin Research), 267-271
CODEN: AEMBAP; ISSN: 0065-2598
PUBLISHER: Plenum Publishing Corp.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Lactoferrin (Lf) has been found in most biol. fluids including amniotic fluid and cervical mucoids in pregnant women, and released from neutrophils in response to the inflammation. As Lf possesses antimicrobial properties, it is widely considered to be an important component of the host defense against microbial infections. It is known that premature labor is caused by amniotic infection with the increase of prostaglandin prodn. High concn. of the inflammatory cytokines: **interleukin-1 .beta.** (IL-1 .beta.), interleukin-6 (IL-6), tumor necrosis factor-.alpha. (TNF-.alpha.) in the

amniotic fluid has been known. However, changes of Lf in amniotic fluid with infection has not been reported. In the present study, Lf concns. in amniotic fluid were measured under the intra-uterine infections state and the biol. significance of Lf was investigated. The effects of Lf on the IL-6 and IL-6mRNA prodn. in cultured amnion cells were also investigated. The concns. of Lf and IL-6 in amniotic fluid with CAM were 8.76.+-.0.65 .mu.g/mL and 6.92.+-.4.88 ng/mL (n=28) resp. and both were significantly higher ($p<0.01$) than those without CAM [0.86.+-.0.81 .mu.g/mL and 0.34.+-.0.25 ng/mL (n=31)]. Significant pos. correlation ($r=0.91$, $p<0.01$) between Lf and IL-6 levels in amniotic fluid was found. IL-6 prodn. induced by lipopolysaccharide (LPS) (100 ng/mL) in cultured amnion cells was significantly **inhibited** ($p<0.05$) under the physiol. concn. of Lf in amnion. Total RNA was extd. from the amniotic cells by guianizine soln. RT-PCR procedure and product anal. were performed from one .mu.g aliquote of total RNA. .beta.-Actin was used as an international std. and c-DNA samples were followed by 30 cycles of PCR. RT-PCR product of IL-6 mRNA was detected by Southern hybridization. Expression of IL-6mRNA was **inhibited** by the addn. of Lf. From the results, the possibility that Lf might suppress amniotic IL-6 prodn. under the condition of amniotic infection is suggested. It is also suggested that Lf might act as self defense mechanism from intra-uterine infection.

L16 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:682302 CAPLUS
DOCUMENT NUMBER: 129:285991
TITLE: Use of lactoferrin in the treatment of allergen-induced disorders
INVENTOR(S): Kimber, Ian; Cumberbatch, Marie; Dearman, Rebecca J.; Conneely, Orla M.; Ward, Pauline
PATENT ASSIGNEE(S): Agennix, Inc., USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9844940	A1	19981015	WO 1998-US7234	19980410
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9869647	A1	19981030	AU 1998-69647	19980410
EP 979099	A1	20000216	EP 1998-915471	19980410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			US 1997-41890	19970410
			WO 1998-US7234	19980410

AB The present invention relates to pharmaceutical compns. and methods using lactoferrin for treating allergic disorders characterized by a local immune response including inflammatory skin reactions, asthma, and arthritis.

L16 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:1559 CAPLUS
DOCUMENT NUMBER: 128:73898

TITLE: Transgenic animals expressing perlecan and amyloid genes at high levels and methods of identifying compounds for the treatment of amyloidoses

INVENTOR(S): Snow, Alan; Fukuchi, Ken-ichiro; Hassell, John

PATENT ASSIGNEE(S): University of Washington, USA

SOURCE: PCT Int. Appl., 146 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9746664	A1	19971211	WO 1997-US9875	19970606
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9736402	A1	19980105	AU 1997-36402	19970606
EP 937137	A1	19990825	EP 1997-933136	19970606
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			US 1996-17830	19960606
			WO 1997-US9875	19970606

AB Transgenic animals expressing a foreign gene for a perlecan, or genes for perlecan and an amyloid are constructed for use in the testing of compds. that can alter the rate or extent of amyloid deposition. Over-expression of perlecan and amyloid proteins results in animals showing symptoms closer to amyloidoses than found in animals only over-expressing an amyloid gene, esp. Alzheimer's disease. Over-expression of a gene encoding domains I-V of mouse perlecan and the 695-amino acid isoform of .beta.-amyloid in P19 cells led to an up-regulation of .beta.-amyloid synthesis and secretion. P19 cells induced to form neurons degenerated when the perlecan gene was overexpressed.

L16 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1997:402319 CAPLUS

DOCUMENT NUMBER: 127:135077

TITLE: Effects of purified bovine whey factors on cellular immune functions in ruminants

AUTHOR(S): Wong, C. W.; Seow, H. F.; Husband, A. J.; Regester, G. O.; Watson, D. L.

CORPORATE SOURCE: CSIRO Division of Animal Health, Private Mailbag P.O., Armidale, NSW, 2350, Australia

SOURCE: Vet. Immunol. Immunopathol. (1997), 56(1,2), 85-96
CODEN: VIIMDS; ISSN: 0165-2427

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The immunomodulatory properties of bovine milk and whey have long been known. Recent advances in whey protein fractionation allowed us to study the immunobiol. properties of some highly purified components of whey, with a view to exploiting their possible industrial and biomedical applications. The effects of fractionated bovine whey proteins on cellular immune responses were therefore examd. using in vitro assays. Both lactoferrin (LF) and lactoperoxidase (LP) **inhibited** the proliferation and interferon-gamma. (IFN) prodn. by ovine blood lymphocytes in response to mitogenic stimulation. However, their effects

in combination or in whey protein conc. (WPC) were diminished or eliminated. LF and LP had no effect on lipopolysaccharide (LPS)-induced ovine blood lymphocyte proliferation, prodn. of **interleukin-1.beta.** (IL) and tumor necrosis factor-.alpha. (TNF) by ovine bronchoalveolar lavage (BAL) macrophages, major histocompatibility complex (MHC) Class II antigen expression by ovine BAL macrophages, and bovine natural killer (NK) cell activity. However, .alpha.-lactalbumin (LA) exhibited an enhancing effect on IL prodn. As bovine whey fractions were progressively more purified, their modulatory effects on immune responses were also more clear-cut. The effects of LF, LP, and LA could be eliminated by their combination in whey or by other minor components of whey. Further investigation of industrial applications for whey proteins of high purity is warranted.

L16 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:323742 CAPLUS
DOCUMENT NUMBER: 127:1196
TITLE: Lactoferrin as a possible transcriptional regulator. Downmodulation of the granulocyte-macrophage colony-stimulating factor promoter
AUTHOR(S): Penco, Silvana; Pastorino, Sandra; Gramigni, Claudia; Bianchi-Scarra, Giovanna; Ravazzolo, Roberto; Garre, Cecilia
CORPORATE SOURCE: Institute of Biology and Genetics, University of Genoa, Italy
SOURCE: Exp. Biol. Med. (Totowa, N. J.) (1997), 28(Lactoferrin), 359-373
CODEN: EBIMFW
PUBLISHER: Humana
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Lactoferrin (Lf) from human neutrophils has an **inhibitory** effect on granulocyte-macrophage colony-stimulating factor (GM-CSF) prodn. via interleukin-1 (IL-1). The nuclear localization of Lf and its ability to bind DNA suggest that it may be involved in the transcriptional regulation of GM-CSF. To explore this possibility, we used two different cell lines: 5637 with constitutive prodn. of GM-CSF and IL-1.beta., and human embryonal fibroblasts with a low basal GM-CSF prodn. inducible by IL-1.beta.. In 5637 cell line, possessing a specific Lf receptor and being able to internalize Lf and translocate it into the nucleus, the levels of GM-CSF and IL-1.beta. mRNA were not modified by incubation of cells in an Lf-contg. medium or by transfection with an expression vector contg. Lf cDNA, although the level of secreted GM-CSF was slightly reduced. In embryonal fibroblasts, induced by IL-1.beta. treatment, downregulation of GM-CSF mRNA was demonstrated after transfection with the Lf expression vector. In both cell types, cotransfection with the Lf expression vector and a plasmid contg. 2.0 kb of GM-CSF promoter sequence fused to the CAT reporter gene caused a net redn. of promoter activity. These results suggest that Lf plays a neg. role in GM-CSF transcription, probably mediated by IL-1.beta..

L16 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:129070 CAPLUS
DOCUMENT NUMBER: 126:184959
TITLE: Interleukin-10 **inhibits** the production of proinflammatory cytokines but neither lactoferrin release nor the anti-candida activity of polymorphonuclear granulocytes from HIV-infected or uninfected subjects
AUTHOR(S): Chiani, Paola; Torosantucci, Antonella; Quinti, Isabella; Cassone, Antonio

CORPORATE SOURCE: Laboratory of Bacteriology and Medical Mycology, Istituto Superiore di Sanita, University of Rome "La Sapienza", Rome, Italy
SOURCE: Immunol. Infect. Dis. (1996), 6(3/4), 189-196
CODEN: IINDEK; ISSN: 0959-4957
PUBLISHER: Rapid Science Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Polymorphonuclear leukocytes (PMNL) from HIV-infected or uninfected subjects were examd. for their cytokine and anticandidal responses to in vitro modulation by a mannoprotein fraction from Candida albicans (MP-F2) and interleukin-10 (IL-10). MP-F2 was as efficient as the bacterial lipopolysaccharide (LPS) in potentiating the anti-Candida activity of PMNL, both in HIV-pos. individuals (even with full-blown AIDS) and in healthy, HIV-neg. controls. MP-F2 and LPS also strongly induced the prodn. of IL-1.beta., IL-6, IL-8, and tumor necrosis factor-.alpha. (TNF-.alpha.) by PMNL from both groups of subjects. Cytokine prodn. was strongly **inhibited** by IL-10, which, however, had no or a very little effect on Candida growth **inhibition** by PMNL from either HIV-pos. or HIV-neg. subjects. Accordingly, the release of the antimicrobial protein lactoferrin from MP-F2- or LPS-stimulated PMNL, which has been shown to play a decisive role for PMNL anticandidal activity, was totally unaffected by IL-10. Apparently, PMNL of HIV-pos. individuals and AIDS patients are fully responsive to stimulation by immunomodulatory products of microbial origin, and cytokine prodn. and anti-Candida activity are unrelated events in the mechanisms of PMNL activation by MP-F2 or LPS. Thus, PMNL from HIV-pos. subjects still possess valid resources to contrast C. albicans growth in vitro and possibly its in vivo spreading from sites of intense mucosal colonization to deep, internal organs.

L16 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1995:581779 CAPLUS
DOCUMENT NUMBER: 123:7638
TITLE: Lactoferrin down-modulates the activity of the granulocyte macrophage colony-stimulating factor promoter in **interleukin-1**.**beta**.-stimulated cells
AUTHOR(S): Penco, Silvana; Pastorino, Sandra; Bianchi-Scarra, Giovanna; Garre, Cecilia
CORPORATE SOURCE: Institute of Biology and Genetics, University of Genova, Genoa, 16132, Italy
SOURCE: J. Biol. Chem. (1995), 270(20), 12263-8
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The human neutrophil lactoferrin (Lf), a cationic iron-binding glycoprotein, has an **inhibitor** role of granulocyte macrophage colony-stimulating factor (GM-CSF) prodn. via interleukin-1 (IL-1). The nuclear localization of Lf suggests that it may be involved in the transcriptional regulation of GM-CSF gene expression. To explore this possibility, the effect of Lf on GM-CSF gene expression was investigated in various cell lines and in primary cultures of fibroblasts. Down-regulation of GM-CSF mRNA level was obsd. in Lf-transfected embryonic fibroblasts induced to produce GM-CSF by IL-1.beta.. In 5637 cell-line and in embryonic fibroblasts, cotransfection expts., in which an Lf expression vector was used together with a vector carrying a reporter gene linked to the GM-CSF promoter, revealed that Lf reduces the activity of the GM-CSF promoter. This effect is marked in IL-1.beta.-stimulated cells. These findings suggest that Lf plays a neg. role in GM-CSF expression at the transcription level, perhaps through the mediation of IL-1.beta..

L16 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:79031 CAPLUS
DOCUMENT NUMBER: 118:79031
TITLE: Lactoferrin release and interleukin-1, interleukin-6, and tumor necrosis factor production by human polymorphonuclear cells stimulated by various lipopolysaccharides: relationship to growth **inhibition** of Candida albicans
AUTHOR(S): Palma, Carla; Cassone, Antonio; Serbousek, Deborah; Pearson, Carolyn A.; Djeu, Julie Y.
CORPORATE SOURCE: Lab. Bacteriol. Med. Mycol., Ist. Super. Sanita, Rome, Italy
SOURCE: Infect. Immun. (1992), 60(11), 4604-11
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Lipopolysaccharides (LPSs) from Escherichia coli, Serratia marcescens, and Salmonella typhimurium, at doses from 1 to 100 ng/mL, strongly enhanced growth **inhibition** of Candida albicans by human polymorphonuclear leukocytes (PMN) in vitro. Flow cytometry anal. demonstrated that LPS markedly augmented phagocytosis of Candida cells by increasing the no. of yeasts ingested per neutrophil as well as the no. of neutrophils capable of ingesting fungal cells. LPS activation caused augmented release of lactoferrin, an iron-binding protein which itself could **inhibit** the growth of C. albicans in vitro. Antibodies against lactoferrin effectively and specifically reduced the anti-C. albicans activity of both LPS-stimulated and unstimulated PMN. Northern (RNA blot) anal. showed enhanced prodn. of mRNAs for **interleukin-1** . **beta**., tumor necrosis factor .alpha., and interleukin-6 in neutrophils within 1 h of stimulation with LPS. The cytokines were also detected in the supernatant of the activated PMN, and their synthesis was prevented by pretreatment of LPS-stimulated PMN with protein synthesis **inhibitors**, such as emetine and cycloheximide. These **inhibitors**, however, did not block either lactoferrin release or the anti-Candida activity of LPS-stimulated PMN. These results demonstrate the ability of various bacterial LPSs to augment neutrophil function against C. albicans and suggest that the release of a candidastatic iron-binding protein, lactoferrin, may contribute to the antifungal effect of PMN. Moreover, the ability to produce cytokines upon stimulation by ubiquitous microbial products such as the endotoxins points to an extraphagocytic, immunomodulatory role of PMN during infection.

L16 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1992:488402 CAPLUS
DOCUMENT NUMBER: 117:88402
TITLE: Regulation of cytokine release from mononuclear cells by the iron-binding protein lactoferrin
AUTHOR(S): Crouch, S. P. M.; Slater, K. J.; Fletcher, J.
CORPORATE SOURCE: Med. Res. Cent., City Hosp., Nottingham, UK
SOURCE: Blood (1992), 80(1), 235-40
CODEN: BLOOAW; ISSN: 0006-4971
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The iron-binding protein lactoferrin (Lf) is a constituent of neutrophil secondary granules and is discharged into the surrounding medium when neutrophils are activated. Lf released from neutrophils phagocytosing opsonized particles **inhibits** proliferation of mixed lymphocyte cultures (MLC) and has also been shown to **inhibit** granulopoiesis, suppress antibody prodn., and regulate natural killer cell

activity. All of these processes are controlled by cytokines, suggesting that Lf may modulate immune responses by **inhibiting** cytokine activity. When MLC were cultured in round-bottomed wells to crowd the cells together, Lf, 50% satd. with iron, **inhibited** both proliferation and interleukin-2 (IL-2) release into the supernatants. **Inhibition** was concn.-dependent and lost at concns. of Lf greater than 10-12 mol/L. Lf at 10-10 mol/L **inhibited** release of tumor necrosis factor-.alpha. (TNF) and **interleukin-1**. **beta**. (IL-1) into MLC supernatants, as well as **inhibiting** IL-2 release. TNF in the supernatant was significantly reduced at 5 and 24 h, becoming less and losing significance by 72 h. IL-1 in the supernatant was not significantly reduced at 5 and 24 h, becoming significant at 48 and 72 h. IL-2 was significantly reduced at 48 and 72 h and followed the same time course as proliferation. **Inhibition** was blocked by specific antiserum to Lf, but not by a preimmune serum. Lf, 10-10 mol/L, also **inhibited** the prodn. of TNF (49.15%) and IL-1 (42.67%) from endotoxin-stimulated mononuclear cells. As with MLC, **inhibition** was dose-dependent and abrogated by specific antiserum. Lf did not block the biol. action of TNF, IL-1, or IL-2 in specific assays using cytokine-sensitive cell lines. These data suggest that Lf, released from activated neutrophils, acts as a neg. feedback mechanism to prevent recruitment and activation of leukocytes in sites of inflammation.

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=> d hist

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L1          5748 S ALLERGY INHIBITORS
L2         29627 S INTERLEUKIN 1 .BETA.
L3          2597 S LACTOFERRINS
L4           225 S LACTOFERRIN RECEPTOR
L5         62702 S DERMATITIS OR CONTACT DERMATITIS
L6          6294 S ANTI-INFLAMMATORY DRUG
L7             2 S L3 AND L1
L8             1 S L3 AND L6
L9            61 S L3 AND L4
L10            0 S L9 AND L2
L11           14 S L9 AND INHIBIT?
L12            0 S L9 AND LACTOFERRIN?.TI.
L13            0 S L4 AND ALLERG?
L14           10 S L3 AND L5
L15           16 S L3 AND L2
L16           12 S L15 AND INHIBIT?

=> log y

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   147.34     148.84

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -17.81     -17.81

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